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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,304	07/29/2003	Alma L. Coats	14974.0002	4474

7590 11/01/2006

STEPTOE & JOHNSON LLP  
Attn: Docket Administrator - Box USPTO  
1330 Connecticut Avenue, NW  
Washington, DC 20036

EXAMINER

HAMILTON, CYNTHIA

ART UNIT PAPER NUMBER

1752

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/628,304

Applicant(s)

COATS ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-32, 37, 39-40, 43, 46-47, 51, 56-57, 69-73, 79, 81-82, 84, 86, 88-89, 91 and 93-102 is/are pending in the application.
- 4a) Of the above claim(s) 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-32, 37, 39-40, 43, 47, 51, 56-57, 69-73, 79, 81-82, 84, 86, 88-89, 91 and 93-102 is/are rejected.
- 7) ☒ Claim(s) 56-57, 95-96 is/are objected to.
- 8) ☒ Claim(s) 30-32, 37, 39-40, 43, 46-47, 51, 56-57, 69-73, 79, 81-82, 84, 86, 88-89, 91 and 93-102 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

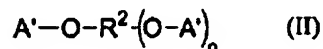
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|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 56 and 57 and 95 and 96 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 56 and 57 which are dependent upon claim 30 expand what is the “first acrylate monomer” from in claim 30 to only “the first acrylate monomer is ethoxylated (3) trimethylolpropane acrylate” to in claim 56 the following group of compounds:

a first acrylate monomer having formula (II):

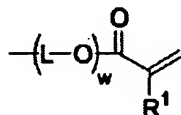


wherein

$R^2$  is a monovalent or polyvalent moiety selected from the group consisting of a  $C_1$ - $C_{12}$  aliphatic group, an aromatic group, and a poly( $C_1$ - $C_4$  branched or unbranched alkyl ether),  $R^2$  being optionally substituted with alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, acyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, aryl, or aralkyl,

$n$  is an integer ranging from 0 to 5, and

each  $A'$  has the formula:



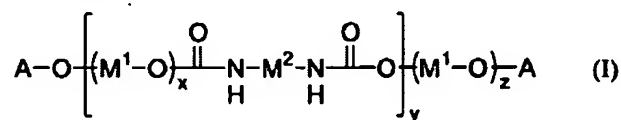
wherein  $R^1$  is hydrogen or lower alkyl, each  $L$  independently is  $C_1$ - $C_4$  alkyl, and  $w$  is an integer ranging from 0 to 20; and

Thus, claims 56-57 in at least this one component are in improper dependent form. With respect to claim 56 and the scope of “first urethane acrylate oligomer”, claim 30 requires that the “first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer” while claim 56

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limits the "first urethane acrylate oligomer" to

first urethane acrylate oligomer has formula (I):

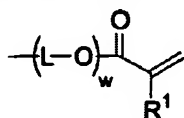


wherein

each  $M^1$  is, independently, an alkylene, an acylalkylene, an oxyalkylene, an arylene, an acylarylene, or an oxyarylene,  $M^1$  being optionally substituted with alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, acyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, silicone, aryl, or aralkyl,

each  $M^2$  is, independently, an alkylene or an arylene,  $M^2$  being optionally substituted with alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, acyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, silicone, aryl, or aralkyl,

each A, independently, has the a formula:



wherein  $R^1$  is hydrogen or lower alkyl, each L is, independently,  $C_1$ - $C_4$  alkyl, and w is an integer ranging from 0 to 20

Since this structure was originally intended to incorporate more than the aliphatic polyester urethane diacrylate oligomer of claim 30 as is clearly evident from the original set of claims presented with the original disclosure, the examiner holds that it is clear that this formula (1) is broader in scope than the aliphatic polyester urethane diacrylate oligomer of claim 30. Thus, applicants can mean by making claims 56-57 dependent upon claim 30 that only those compounds which make up aliphatic polyester urethane diacrylate oligomers are part of the claimed invention of claims 56-57 because they must be within the limits of claim 30 to be properly dependent or applicants mean by claims 56-57 to broaden the scope of the first urethane acrylate oligomer to that outside the scope of claim 30 and thus make claims 56-57 objectionable

because they further broaden the scope of a claim upon which they depend. Since the second interpretation is the broadest reasonable interpretation of the claim the examiner now objects to claims 56-57 because they also broaden the scope of claim 30. The examiner is tasked in examination to use the "broadest reasonable interpretation consistent with the specification" of the claim language. In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). See particularly MPEP 2111. The examiner is also tasked during examination with respect to the claims to interpret as broadly as their terms reasonably allow. In re American Academy of Science Tech Center, 2004 WL 1067528 (Fed. Cir. May 13, 2004). The words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. b. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). The exact same problems with broadening the scope of claim 31 by claims 95 and 96 exist and are here made for the same reasons as claims 56-57 broaden the scope of claim 30. The examiner is now tasked to reject claims 56-57 and claim 95-96 as if they were as broad as set forth thus not limited to the "the first acrylate monomer is ethoxylated (3) trimethylolpropane acrylate" and not limited to "first urethane acrylate oligomer is an aliphatic polyester urethane diacrylate oligomer" within the scope of the elected invention.

2. Claims 30-32, 37, 39-40, 43, 47, 51, 56-57, 69-73, 79, 81-82, 84, 86, 88-89, 91 and 93-102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. What is meant by the term "aliphatic polyester urethane diacrylate oligomer" is confusing as indicated by the discussion above with respect to claims 56-57 and 95-96 if the

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structures as set forth in claims 56-57 and 95-96 in all combinations considered "aliphatic polyester urethane diacrylate oligomer". "Aliphatic" references compounds which are not aromatic and not cyclic in nature as identified by Grant & Hackh's Chemical Dictionary, The \*7<sup>th</sup> edition of the CRC Handbook of Chemistry and Physics includes both cyclic and acyclic groups in their definition but exclude aromatics, The Britannica Online excludes all ring groups, as do Hawley's Condensed Chemical Dictionary. Since claims 56 and 95 both define their groups "aryl" or "aralkyl" or oxyarylene or acylarylene arylene all groups which are all aromatic groups in M1 and M2 then what is meant by "aliphatic polyester urethane diacrylate oligomer" when referencing "aliphatic" is confused applicant's amendments to make claims 56-57 dependent upon claim 30 and claims 95-96 dependent upon claim 31. This is a new issue due to the amendment of the claims and thus finality is properly made in view of this newly added confusion by applicant's claim language.

3. Claim 46 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on December 9, 2004.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

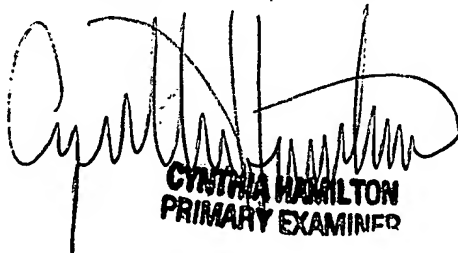
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday 9:30 am to 5:00 pm.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.*

*Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.*



**CYNTHIA HAMILTON  
PRIMARY EXAMINER**

Cynthia Hamilton  
Primary Examiner  
Art Unit 1752

October 30, 2006